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ABSTRACT

This outline provides a guide for the instructor of unit record equipment at the tenth, eleventh, and twelfth grade levels. The first week is spent reviewing punched card principles, and the remaining hours are devoted to learning the purpose, operation, and principles of control panel wiring for the interpreter, reproducing punch, accounting machine, verifier, calculator, sorter, and collator. Suggestions for teaching methods, class time required, bibliography, and a sample post test complete the outline. (AG)

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AUTHORIZED COURSE OF INSTRUCTION FOR THE QUINMESTER PROGRAM

Course Outline
DATA PROCESSING TECHNOLOGY - 8025
(Unit Record Equipment - Basic)
Department 73 - Quin 8025.14
8120.04 (old)

CE 000 001

DADE COUNTY PUBLIC SCHOOLS
DIVISION OF INSTRUCTION • 1973

D A D E C O U N T Y P U B L I C S C H O O L S

1 4 5 0 N O R T H E A S T S E C O N D A V E N U E

M I A M I, F L O R I D A 33132

Course Outline

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county office of

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Dade County Public Schools
Miami, Florida 33132

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Course Description

8025	48	8025.14	Unit Record Equipment - Basic
State Category	County Dept.	County Course	Course Title

This is a course in which the student will learn the purpose, operation, and where applicable, principles of control panel wiring for the interpreter, reproducing punch, accounting machine, verifier, calculators, sorter and collator. It is highly desirable for the student to have already taken Keypunch and Verifier (8025.11) and Sorter and Advanced Keypunch (8025.12).

Clock Hours: 45

PREFACE

The following quinmester course outline is a guide for the instructor to present to students the skills necessary to become proficient in the operation of unit record equipment. This course is designed for the 10th, 11th or 12th grade student. Unit Record Equipment is one of a series of four quins that could be taken to prepare the student for employment in an entry level job operating unit record equipment.

The first week of the course provides a short review of punched card principles. The following eight weeks the student learns the purpose, operation, and where applicable, principles of control panel wiring for the Interpreter, Reproducing Punch, Accounting Machine, Verifier, Calculator, Sorter and Collator.

In presenting the material outlined in this course, the instructor uses lectures, presentations, student participation, demonstration, and student projects as methods of instruction.

The class meets one hour per day for 45 clock hours. This outline consists of four blocks of instruction which are subdivided into several units each.

This outline was developed through the cooperative efforts of the instructional and supervisory personnel, the Quinmester Advisory Committee and the Vocational Curriculum Materias Service, and has been approved by the Dade County Vocational Curriculum Committee.

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with Suggested Hourly Breakdown

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BLOCK

I. ORIENTATION (1 Hour)

Familiarizing the Student with School Regulations and Course Objectives	1
Regulations in the Use of Equipment and Materials	1

II. REVIEW OF PUNCHED CARD DATA PROCESSING (4 Hours)

Historical Background of the Punched Card	1
Fundamentals of Punched Card Accounting	1
The Punched Card	1
Coding Data	1

III. UNIT RECORD EQUIPMENT - INTERPRETER, REPRODUCING PUNCH, ACCOUNTING MACHINE, VERIFIER, CALCULATORS, SORTER, COLLATOR (35 Hours)

Operating Features	1
Machine Functions	1
Operating Procedures	2
Operating Suggestions and Precautions	2
Control Panel	2

IV. QUINMESTER POST-TEST (5 Hours)

APPENDIX: QUINMESTER POST-TEST SAMPLE 5

GOALS

The student must be able to demonstrate:

1. Knowledge of the punched card and punched card accounting.
2. The ability to wire the control panels for basic operations.
3. The skill necessary to operate unit record equipment under simulated job conditions.

SPECIFIC BLOCK OBJECTIVES

BLOCK I - ORIENTATION

The student must be able to:

1. Explain orally or in writing what is expected of him as a student unit record equipment operator.
2. Explain the proper use of equipment and materials.

BLOCK II - REVIEW OF PUNCHED CARD DATA PROCESSING

The student must be able to:

1. Discuss the historical background of the punched card.
2. Explain in writing the fundamentals of punched card accounting.
3. Describe the punched card and its purpose.
4. Explain why data is coded.
5. Explain the manner in which data is coded.

BLOCK III - UNIT RECORD EQUIPMENT - INTERPRETER, REPRODUCING PUNCH, ACCOUNTING MACHINE, VERIFIER, CALCULATORS, SORTER, COLLATOR

The student must be able to:

1. Explain orally or in writing the operating features of the different types of equipment studied.
2. Explain orally or in writing the purpose of each of the types of unit record equipment studied.
3. With equipment available, demonstrate operating procedures through simulated job conditions.
4. Exhibit the ability to handle cards correctly.
5. Demonstrate the ability to wire control panels for basic operations on available machines.

BLOCK IV - QUINMESTER POST-TEST

The student must be able to:

1. Satisfactorily complete the quinmester post-test.

Course Outline

DATA PROCESSING TECHNOLOGY - 8025
(Unit Record Equipment - Basic)

Department 73 - Quin 8025.14
8120.04 (old)

I. ORIENTATION

A. Familiarizing the Student with School Regulations and Course Objectives
   1. School policy rules and facilities of the school
   2. Objectives and requirements of the course
   3. Methods and techniques of presenting instruction

B. Regulations in the Use of Equipment and Materials
   1. Safety practice in the use of equipment
   2. Care of equipment and materials
   3. Classroom procedures and cleanliness of work area

II. REVIEW OF PUNCHED CARD DATA PROCESSING

A. Historical Background of the Punched Card

B. Fundamentals of Punched Card Accounting

C. The Punched Card

D. Coding Data

III. UNIT RECORD EQUIPMENT - INTERPRETER, REPRODUCING PUNCH, ACCOUNTING MACHINE, VERIFIER, CALCULATORS, SORTER, COLLATOR

A. Operating Features
   1. Description, location and operation
      a. Machine controls
      b. Hopper
      c. Stacker
      d. Other features unique to the machine being studied
   2. Advantages
   3. Limitations
   4. Theory of operating machine currently being studied

B. Machine Functions
   1. Description
   2. Purpose
   3. Advantages
   4. Limitations
   5. Application

C. Operating Procedures
   1. Setting up the operation
   2. Testing the operation
   3. Inserting the cards in the hopper
   4. Operating the machine
   5. Observing the signal lights
   6. Removing the cards from the stacker

D. Operating Suggestions and Precautions
   1. Handling cards
   2. Eliminating card jams

E. Control Panel
   1. Purpose
   2. Basic wiring

IV. QUINMESTER POST-TEST

BIBLIOGRAPHY
(Unit Record Equipment - Basic)

Basic References:

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7. IBM Reference Manual - IBM 602 Calculating Punch. Form A26-0506. White Plains, New York: International Business Machines Corporation, n.d. n.p.

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A P P E N D I X

Quinmester Post-Test Sample

Quinmester Post-Test

A report of sales by salesman, by customer and by product is desired. By utilizing unit record equipment you have studied, you are to prepare the file cards necessary to obtain the required report. This is a three part test. You are to operate the verifier, sorter and collator under simulated job conditions and will be graded on:

1. Card handling ability
2. Using correct procedure for errors and/or card jams
3. Ability to wire control panel
4. Following correct operating procedure

I. With original documents and cards that have already been punched, you are to operate the verifier to check the accuracy of punching.

II. With punched cards provided, you are required to sort on several fields as follows:

1. Block sort field: card columns 43-44.
2. Sort numerically (ascending order) the cards from the 9 pocket that were just block sorted. Field: card columns 50-54.
3. Sort numerically (ascending order) all the cards from step "b." Field: card columns 25-29.

III. By wiring the control panel of the collator, check the sequence (card columns 25-29) of the cards you have just sorted.